OSHKOSH SPECIALTY VEHICLES

# Site Planning Guide

## Indiana Department of Homeland Security Command Center

© 2007 Oshkosh Specialty Vehicles

This guide contains confidential information of Oshkosh Specialty Vehicles. You may not copy it or any part of it without the written permission of Oshkosh Specialty Vehicles. This guide may be used only by you, and only for the purposes for which it was intended. You may not disclose this guide or the confidential information it contains outside of your company. If you wish to copy any part of this guide, or to use it other than as it described above, you must contact Oshkosh Specialty Vehicles seeking permission to do so.

North America

**Corporate Headquarters**
Oshkosh Specialty Vehicles
16745 South Lathrop Ave.
Harvey, IL
60426
USA
(001) 708.596.5066

Europe

Oshkosh Specialty Vehicles, Ltd.
Unit 17, Nelson Way
Tuscum Trading Estate,
Camberley, Surrey
GU15 3DH
United Kingdom
(44) 01276.64490

Buys Ballotstraat 6
3261 LA Oud-Beijerland, Holland
+31 (0) 186-614322
Fax +31 (0) 186-619367
E-mail: smit@smit-mobile.nl

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

OSHKOSH SPECIALTY VEHICLES

# List of Revisions

## Revisions

| | | |
|---|---|---|
| 00 | Initial Release | April 2006 |
| 01 | Updated Company Reference | September 2007 |

## Notice

In accordance with our policy of continued product improvement, Oshkosh Specialty Vehicles reserves the right to make changes in the equipment, design, specifications, and materials of the product described herein. Any problems or questions related to the components or systems covered in this booklet may be directed to:

Oshkosh Specialty Vehicles
Attention: Service Department
16745 South Lathrop Avenue
Harvey, Illinois
60426
USA

(001) 800.839.0630 (24 hour service)
(001) 708.596.2480 (fax)

http://www.oshkoshsv.com/

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

OSHKOSH SPECIALTY VEHICLES

# Table of Contents

**Introduction ..... 5**

Warnings & Safety Alert Conventions ..... 5

**Support Pad Requirements ..... 7**

Trailer Weight ..... 7
Recommended Support Pad Requirements ..... 7
Recommended Service Pad ..... 7
Support Pad Depth ..... 7
Support Pad Levelness ..... 7
Vehicle Access ..... 7
Swing Clearance Note ..... 7

**Customer Power Requirements ..... 8**

Lockout/Tagout ..... 8
Electrical Service ..... 8
Configuration ..... 8
Load Regulation at Line Frequency ..... 8
Frequency ..... 8
Phase Balance ..... 8
Maximum Voltage Variation ..... 9
Connector Type ..... 9
Customer Facility ..... 9
Connector Notes ..... 9
Portable, Electrical Utility Box with Circuit Breaker ..... 9
Voltage Surges ..... 10
Power Source Monitoring (Facility Only) ..... 10

**Mobile Grounding Requirements ..... 11**

Special Ground Note ..... 11

**Telephone Service Requirements ..... 12**

Telephone Service ..... 12
Data Service ..... 12

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

OSHKOSH SPECIALTY VEHICLES

# Table of Figures

Figure 1: Pad Layout....13
Figure 2: Right Side Elevation....14
Figure 3: Left Side Elevation....15
Figure 4: Front and Rear Side Elevation....16
Figure 5: Turning Requirements....17
Figure 6: Right Side Elevation with Tractor....18

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

OSHKOSH SPECIALTY VEHICLES

# Introduction

The purpose of this document is to provide the basic information needed for site planning. For specific information not contained in this document, please contact Oshkosh Specialty Vehicles.

The mobile unit requires sufficient room to be maneuvered and positioned for setup and takedown. The mobile unit has many storage compartments and service doors that require access during these procedures as well as during operation. The entry stair and optional platform require additional space on the right side of the mobile self-propelled unit. Refer to the drawings provided for actual locations of doors and stair sizes and locations.

## Warnings & Safety Alert Conventions

The following terms define the various precautions and notices used in this manual:

**NOTE:** **Whenever information exists that requires additional emphasis beyond the standard textual information, the term "NOTE" is used.**

IMPORTANT — **Whenever information exists that requires special attention to procedures to ensure proper operation of the equipment or to prevent its possible failure, the term "IMPORTANT" is used.**

CAUTION — **Whenever potential damage to equipment exists, requiring correct procedures / practices for prevention, the term "CAUTION" is used.**

WARNING — **Whenever potential personal injury or death situations exit, requiring correct procedures / practices for prevention, the term "WARNING" is used.**

DANGER — **Whenever immediate hazards exist that could result in personal injury or death that cannot be eliminated by design safeguards, the term "DANGER" is used.**

⚠ — **This safety alert symbol indicates important safety messages in the manual. When you see this symbol, carefully read the message the follows and be alert to the possibility of personal injury or death.**

WARNING — **Electrical, mechanical, and pneumatic safety devices have been installed on this vehicle to help protect against personal injury and / or damage to equipment. Under no circumstances should any attempt be made to disconnect or in any way render any of these devices inoperative. If a malfunction of any safety device is discovered to exist, DO NOT operate the vehicle, and immediately notify appropriate maintenance personnel.**

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

**Oshkosh Specialty vehicles shall have no liability with respect to: . . . . . REPAIRS IMPROPERLY PERFORMED OR REPLACEMENTS IMPROPERLY INSTALLED (or) USE OF REPLACEMENT PARTS OR ACCESSORIES NOT CONFORMING TO Oshkosh SPECIALTY VEHICLE'S SPECIFICATIONS, WHICH ADVERSELY AFFECT PERFORMANCE OR DURABILITY (or) ALTERATIONS OR MODIFICATIONS NOT RECOMMENDED OR APPROVED IN WRITING BY Oshkosh SPECIALTY VEHICLES (or) FOR EQUIPMENT DAMAGE OR PERSONAL INJURY OR DEATH AS A RESULT OF RENDERING ANY SAFETY DEVICE INOPERABLE.**

**Certain inherent risks are associated with heavy trailers due to the nature of their use. Personnel working in the area of these trailers are subject to certain hazards that cannot be met by mechanical means but only by the exercise of intelligence, care, and common sense. It is therefore essential for the owner of this equipment to have personnel involved in the use and operation of these trailers who are competent, careful, physically and mentally qualified, and trained in the safe operation of this equipment.**

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

OSHKOSH SPECIALTY VEHICLES

# Support Pad Requirements

The following is a list of recommendations and requirements for a concrete support pad. However, due to varying site conditions, the actual pad design should be prepared by an appropriately licensed structural or architectural engineer.

## Trailer Weight

The weight of the trailer should be considered in the design of the support and service pads. The overall weight of the trailer is approximately 55,000 lbs. The weight on the rear axles is approximately 34,000 lbs. The weight on the King Pin is approximately 21,000 lbs.

## Recommended Support Pad Requirements

A full pad measuring 10’-11” x 45’-5” is the recommended support pad as shown on **Figure 1: Pad Layout**. The cross hatching as shown on **Figure 2: Right Side Elevation**, and **Figure 3: Left Side Elevation** represents the minimum recommended support pad.

## Recommended Service Pad

A full pad measuring 30’-11-1/2” x 60’-10-1/4” is the recommended service pad. This will allow full service access to the mobile unit. The recommended service pad is shown on **Figure 1: Pad Layout**, **Figure 2: Right Side Elevation**, and **Figure 3: Left Side Elevation**.

## Support Pad Depth

Recommendations for the width and length of the pad are given above. Based upon the weight distribution of the mobile unit and existing site conditions, the depth should be determined by a local contractor.

## Support Pad Levelness

In order to ensure proper operation of the system, the support pad(s) must be level and the deviation must not exceed 2” in 10’-0”.

## Vehicle Access

A firm, level surface is required around the mobile unit in order to provide access to the site, personnel access to the mobile unit, and servicing of the mobile unit.

## Swing Clearance Note

Please verify the actual dimensions of the rearmost projections on the mobile self-propelled unit to the centerline of tandem suspension. Refer to **Figure 5: Turning Requirements** for proper turning requirements.

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

OSHKOSH SPECIALTY VEHICLES

# Customer Power Requirements

**WARNING** It is the operator's responsibility to verify that the shore power receptacle is electrically compatible with the mobile unit's power cable and connector prior to connecting to the shore power connection. Plugging into a receptacle not electrically compatible could cause serious injury or damage.

**CAUTION** The standard connector for the unit is a Leviton #16R22 connectors, (480V AC). If an existing site currently implements a different connector or connector configuration, please contact Oshkosh Specialty Vehicles in order to arrange for a compatible power connector before the unit leaves the facility.

**CAUTION** Always inspect the power cable, connectors, and fasteners prior to usage. If during inspection, it is suspected that either internal or external damage has occurred, have a certified electrician inspect and repair the damage before using.

**IMPORTANT** Follow the maintenance schedule in the Operator and Service Manual for safe operation of the mobile unit.

## Lockout/Tagout

A Lockout/Tagout provision in accordance with OSHA Standard 1910.147 is required. The facility shore power disconnect device must be located within 40'- 0" of the unit and must provide for an effective lockout/tagout to facilitate safe service and maintenance of the unit.

## Electrical Service

480V AC, three-phase, fused at 150 amps.

## Configuration

Three-phase delta connection, four wire, with ground.

## Load Regulation at Line Frequency

Wires are to be sized such that the line voltage drops from the power source to the mobile unit is less then 6% of the nominal voltage for the rated load of the mobile unit.

## Frequency

60Hz ±0.5Hz.

## Phase Balance

The phase balance is 2% maximum of lowest phase-to-phase voltage.

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

OSHKOSH SPECIALTY VEHICLES

## Maximum Voltage Variation

The maximum voltage variation is ±2% from a nominal steady state (under the worst case conditions of line voltage).

## Connector Type

The mobile unit is supplied with a 150'-0" power cable and connectors as specified below:

- Ground – Leviton #16d31-G, Green, Female
- L1 – Phase "A" – Leviton #16d22-H, Brown, Male
- L2 – Phase "B" – Leviton #16d22-O, Orange, Male
- L3 – Phase "C" – Leviton #16d22-Y, Yellow, Male

## Customer Facility

The customer facility must have the matching receptacle connectors as specified below:

- Ground – Leviton #16R21-G, Green, Male
- L1 - Phase "A" – Leviton #16R22-H, Brown, Female
- L2 – Phase "B" – Leviton #16R22-O, Orange, Female
- L3 – Phase "C" – Leviton #16R22-Y, Yellow, Female

## Connector Notes

The standard connector for the mobile unit is a Leviton connector. The mobile unit is configured for 480V AC service. Many existing mobile sites are set up for a variety of different mobile units that this Command Center could utilize. Review the different site configurations to determine the best location for the Command Center on these sites If an existing site currently implements a different connector, connector configuration, or the available power supply varies from the above specifications, please contact Oshkosh Specialty Vehicles to arrange for a compatible power connector before the mobile unit leaves the facility.

## Portable, Electrical Utility Box with Circuit Breaker

The mobile unit is configured for 480V AC 3 phase 150-amp service. A portable electrical utility box with circuit breaker is supplied with the unit. The trailer connection (output) side of the box utilizes the Leviton color-coded connectors to allow direct connection to the trailer. The (input) side of the box has four color-coded, labeled raw cables. The cables may be connected to an appropriate power source, either a portable generator or other suitable 480V AC 3 phase 150-amp power supply.

The phase rotation is "ABC" rotation. The trailer utilizes a phase monitor to protect installed equipment from out of phase conditions. Connecting the box in an out of phase condition will cause the phase monitor to alarm and the air conditioning system to shut down.

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

## Voltage Surges

Transient voltage variations caused by external loads must not:

- Exceed ±5%.
- Exceed five cycles duration.
- Occur more then ten times an hour.

## Power Source Monitoring (Facility Only)

**NOTE: Perform a power audit first.**

A power analyzer should be used to check the proposed Mobile Command Center facility site power for average line voltage, surges, sags, reclosures, impulses, frequency and microcuts. A period that includes two weekends should be used to simulate several days of normal use. Analysis of the data and site history of any previous power problems with other systems or computer installations should be reviewed with your power and ground representative. Verify “brown-out” (low voltage) conditions, which may occur during summer months, will not exceed the allowable range.

Some analyzer models that are suitable for power monitoring are:

- Dranetz Model 658
- Dranetz Model 656A
- BMI 3630
- RPM

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

OSHKOSH SPECIALTY VEHICLES

# Mobile Grounding Requirements

**IMPORTANT** All work is to be done in accordance with the local and national electrical codes.

**IMPORTANT** Information shown here is only a recommendation and must be verified with both local and national site codes.

**IMPORTANT** Ground wires inside enclosures are to be taped green for the entire visual length for identification purposes.

**IMPORTANT** If a separately derived, secondary system transformer is used, a bonding jumper between the grounded conductor (neutral) and the equipment – grounding conductor must be used.

## Special Ground Note

The mobile unit must have an earth driven ground rod within 5'-0" of the facility power receptacle. A grounding cable of a minimum #2/0 AWG must be connected between the grounding rod and the grounding pin of the facility power receptacle. A separate grounding conductor must still be run with the phase conductors to the source of the power from the grounding pin of the hospital power receptacle in accordance with NEC 2002 Article 250-24.

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

OSHKOSH SPECIALTY VEHICLES

# Telephone Service Requirements

## Telephone Service

The telephone connection is located on the IO Panel in the right front and rear underbody compartment.

## Data Service

The data connection is located on the IO Panel in the right front and rear underbody compartment.

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

OSHKOSH SPECIALTY VEHICLES

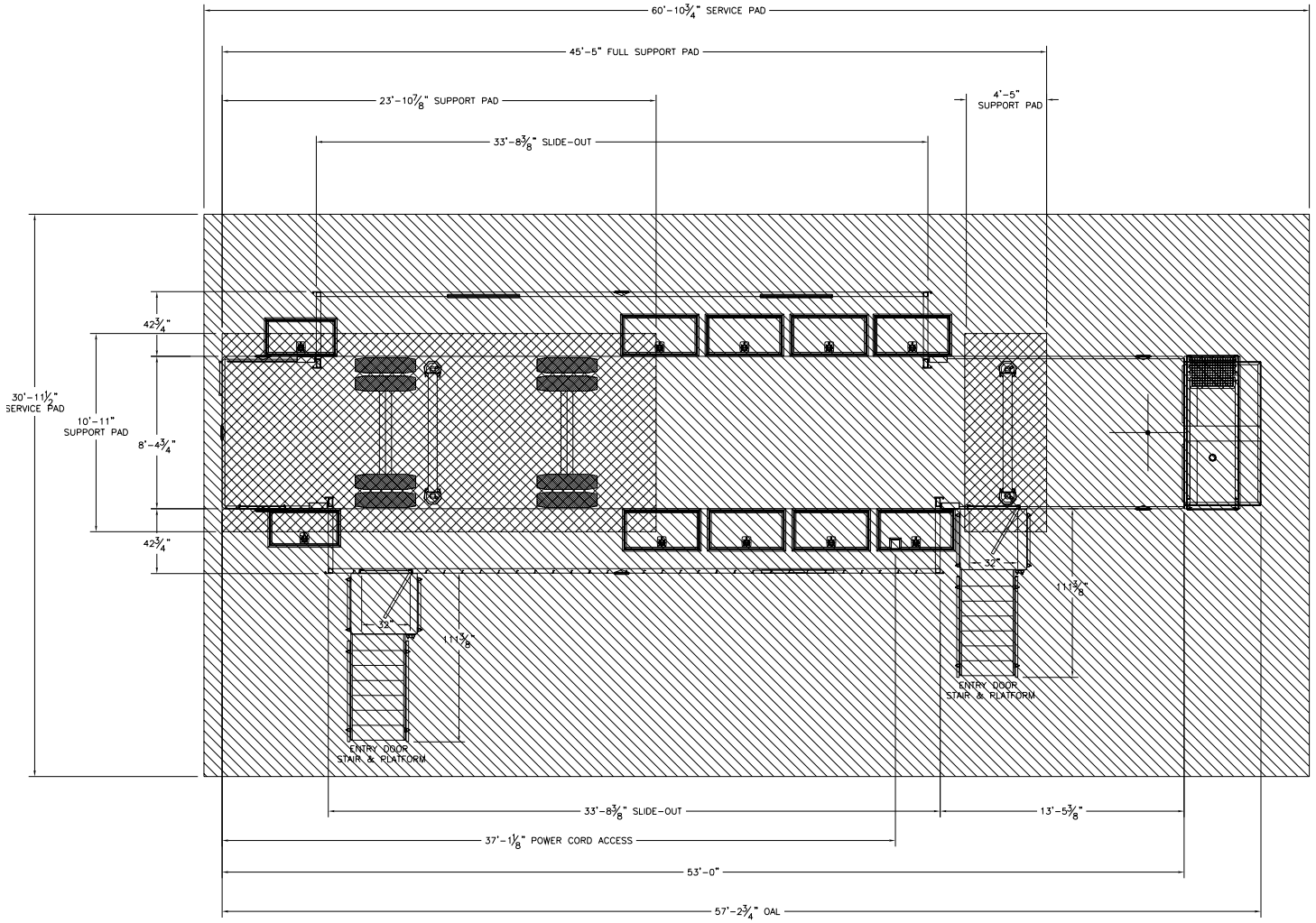



**Figure 1: Pad Layout**

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

OSHKOSH SPECIALTY VEHICLES

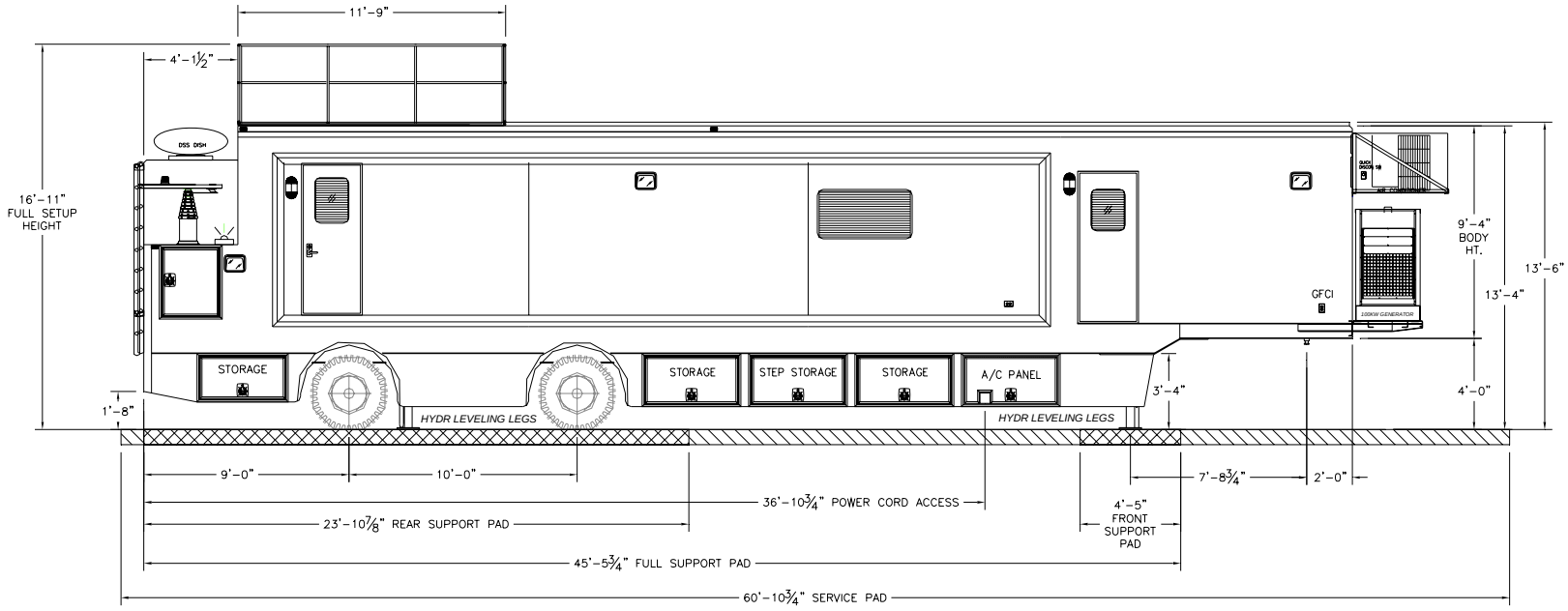



**Figure 2: Right Side Elevation**

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

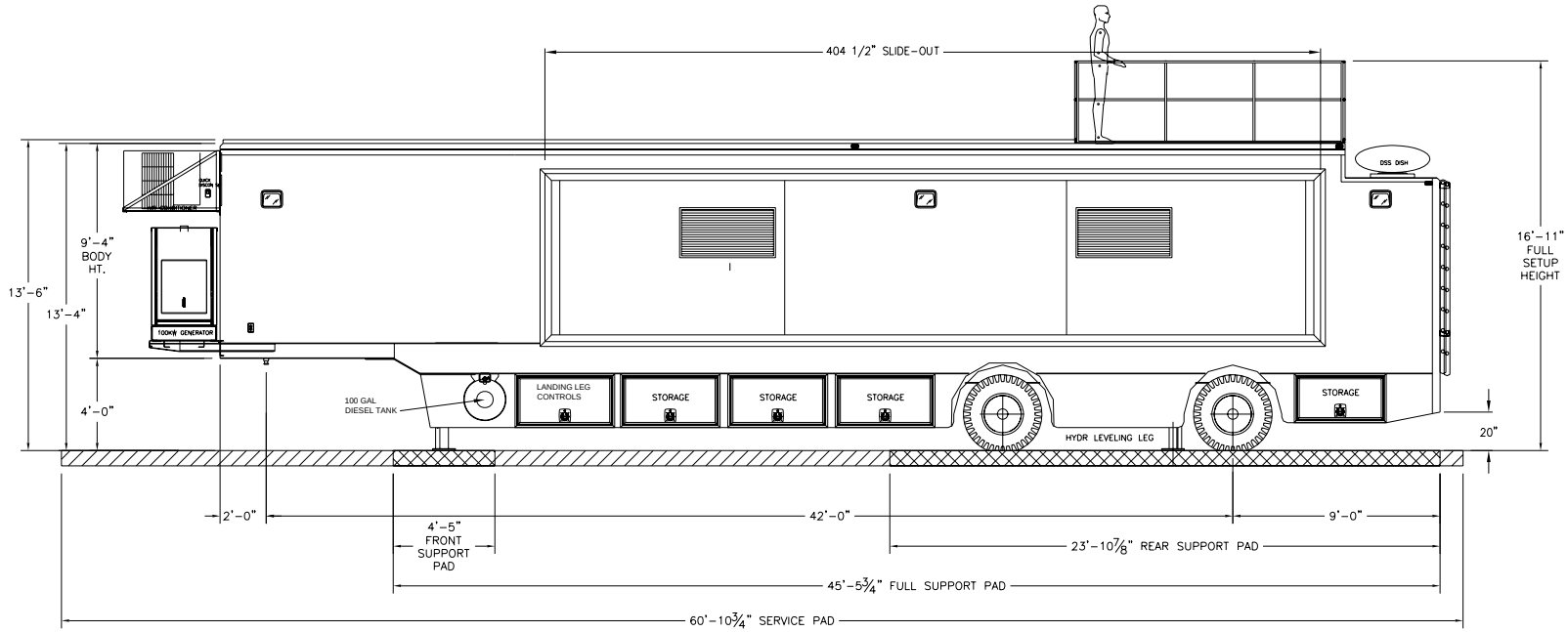



**Figure 3: Left Side Elevation**

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

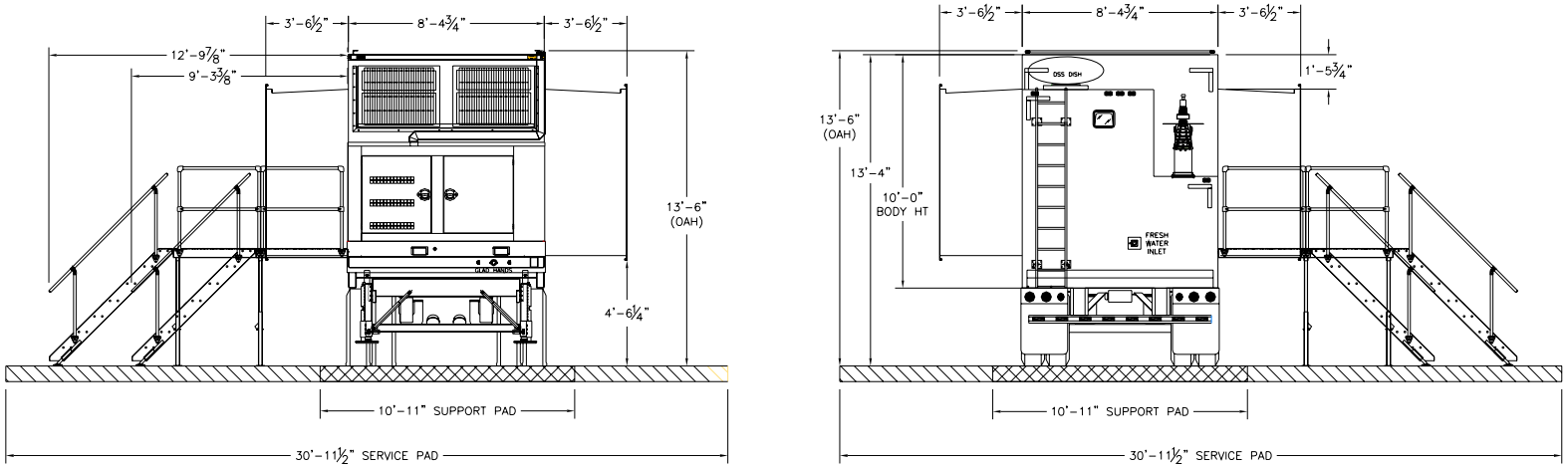
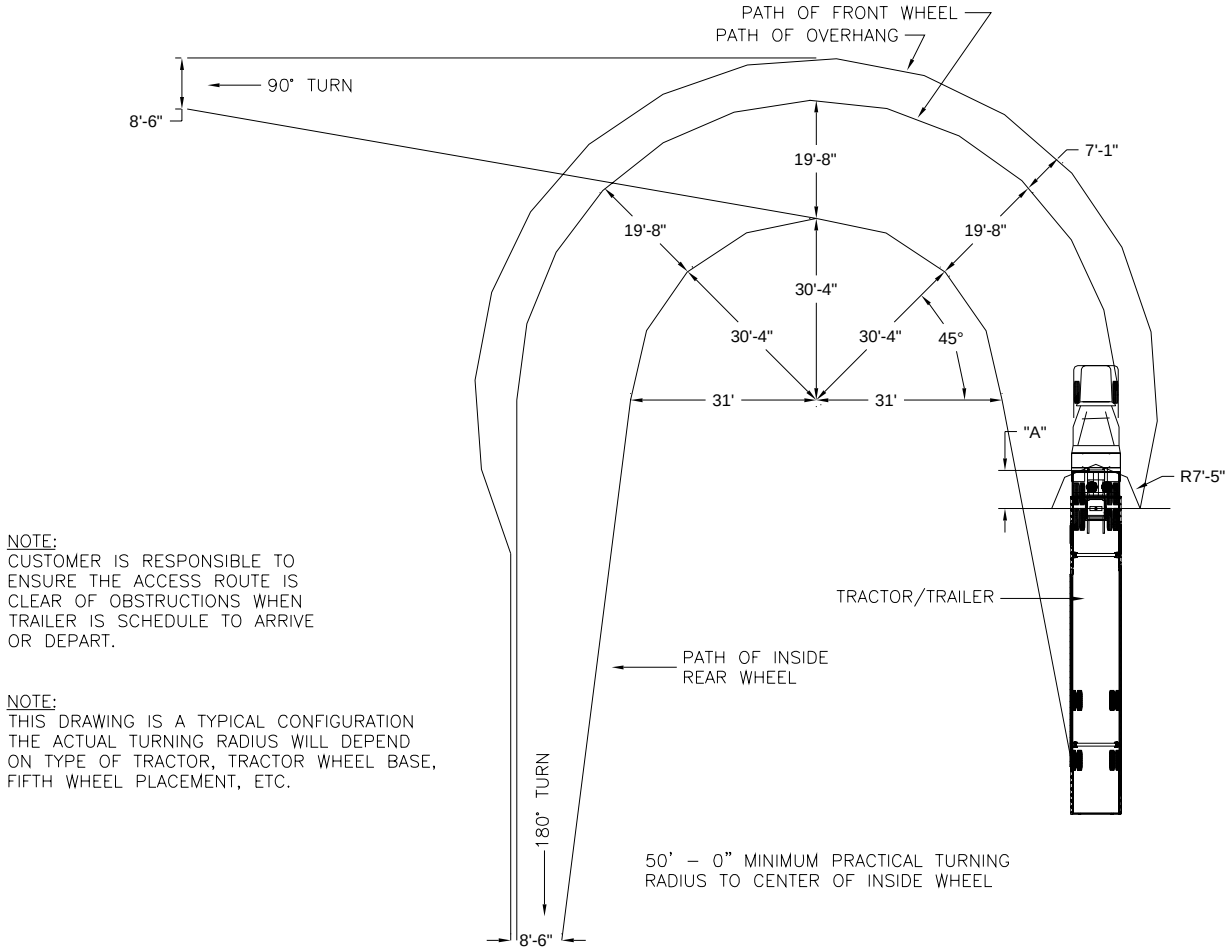



**Figure 4: Front and Rear Side Elevation**

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

OSHKOSH SPECIALTY VEHICLES




NOTE:
CUSTOMER IS RESPONSIBLE TO ENSURE THE ACCESS ROUTE IS CLEAR OF OBSTRUCTIONS WHEN TRAILER IS SCHEDULE TO ARRIVE OR DEPART.

NOTE:
THIS DRAWING IS A TYPICAL CONFIGURATION THE ACTUAL TURNING RADIUS WILL DEPEND ON TYPE OF TRACTOR, TRACTOR WHEEL BASE, FIFTH WHEEL PLACEMENT, ETC.

**Figure 5: Turning Requirements**

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.

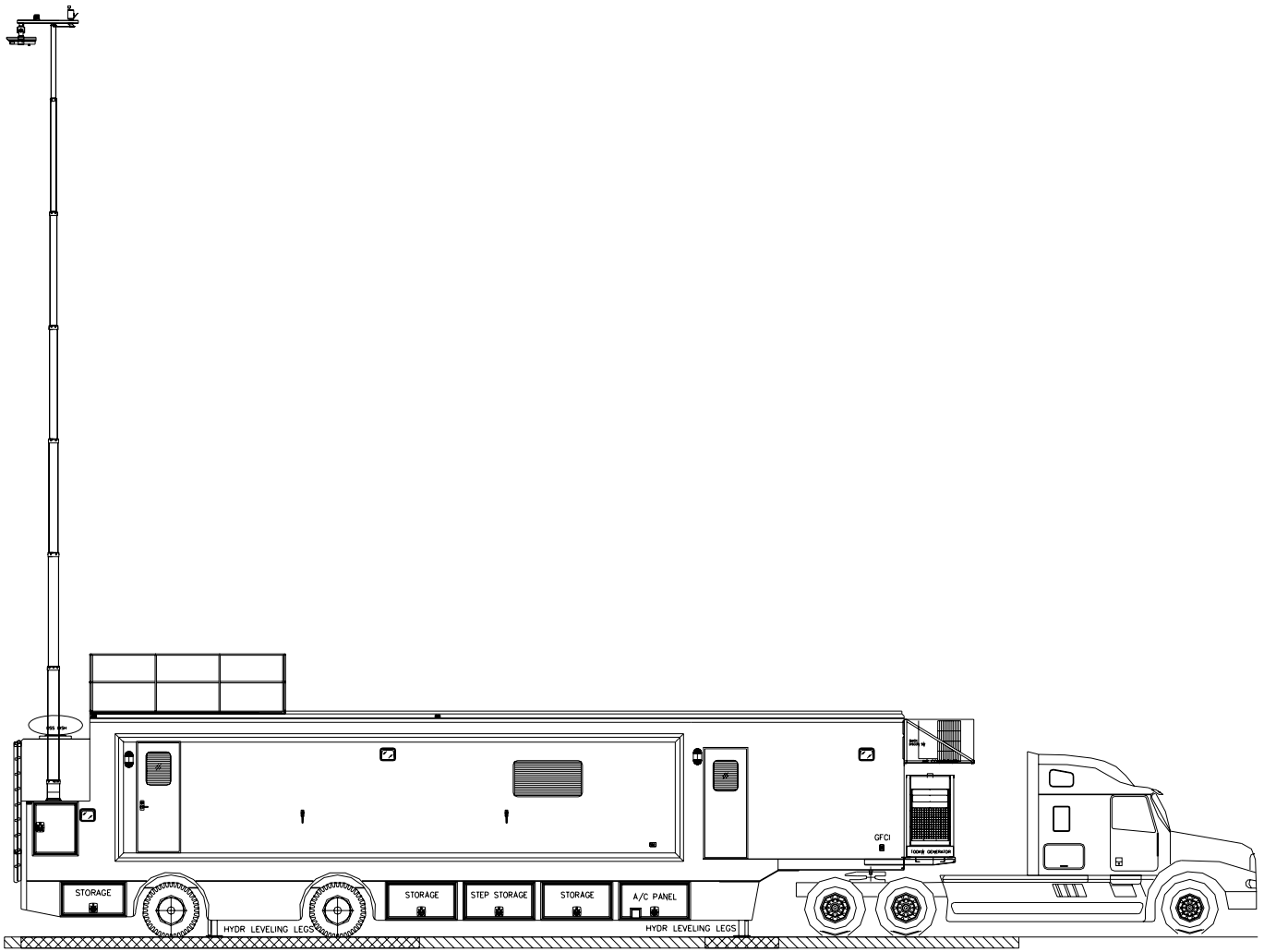



Figure 6: Right Side Elevation with Tractor

This information is the property of Oshkosh Specialty Vehicles and is considered to be confidential. The contents may not be used, either partially or wholly, for any purpose inconsistent with which it was produced. Also, this information may not be reproduced or disclosed without prior express consent.